

Abstract of the Disclosure

Provided are a method and apparatus for identifying a fingerprint. The method uses minutiae points of the fingerprint and includes (a) enrolling a fingerprint of a first user in a first database by extracting n minutiae points from a fingerprint image of the first user; selecting one of the n minutiae points as a reference point; rotating the other minutiae points by a predetermined angle with respect to the reference point; generating a first user table containing information regarding the first user's fingerprint based on geometrical changes of the other minutiae points which are obtained by the rotation; and storing the first user table in the first database; and (b) identifying a fingerprint of a second user by extracting m minutiae points from a fingerprint image of the second user; selecting one of the m minutiae points as a reference point; generating a second user table containing information regarding the second user's fingerprint based on geometric changes of the other minutiae points obtained by rotating the other minutiae points by an angle about the reference point; comparing the second user table with the first user table, and selecting a similar candidate list of user tables (m and n are integers). Accordingly, it is possible to enroll a large amount of information regarding fingerprints in a database using quantization and geometric hashing while using a limited storage memory of a central database. Further, it is possible to accurately identify and detect a user's fingerprint in real time using geometric hashing and parallel processing.